

CLAIMS

What is claimed is:

1. A method of hard coating a lens, comprising the steps of:

5 maintaining a dip tank at a temperature T_D , wherein the dip tank includes a liquid

including one of a primer and a hard coat solution;

 drying the lens;

 heating the lens to a temperature T_L ;

 dipping the lens into the dip tank wherein T_L is within 20 degrees F of T_D .

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2. The method of claim 1, wherein the step of drying includes the step of storing the lens in a dry environment.

3. The method of claim 2, wherein the dry environment is heated.

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4. The method of claim 2, wherein the dry environment is heated to a temperature within a range from about 90 degrees F to about 110 degrees F.

5. The method of claim 1, wherein the step of drying the lens is performed after the lens has
20 been stored.

6. The method of claim 1, further comprising the step of molding the lens wherein the step of drying the lens is performed after demolding the lens.

7. The method of claim 1, further comprising the step of predrying raw material, used for forming the lens, before introducing the raw material into a mold.
- 5 8. The method of claim 7, wherein the predrying step includes maintaining the raw material in an ambient environment having a negative dew point temperature.
9. The method of claim 8, wherein the maintaining the raw material step includes maintaining the raw material in an ambient environment having a dew point temperature of -40 F for between
10 about 2 hours and about 4 hours.
10. The method of claim 1, wherein the dip tank includes below a 2% concentration of primer.
11. The method of claim 1, wherein said dipping step comprises dipping the lens into the dip
15 tank wherein T_L is greater than T_D .
12. The method of claim 1, wherein the dip tank is heated within a range from about 100 degrees F to about 150 degrees F.
- 20 13. The method of claim 1, wherein the dipping step includes a primer dip and the method additionally includes the step of:
evening out the thickness of the primer by further dipping the lens in a rinse tank.

14. The method of claim 13, wherein the primer and the rinse comprise a water-based primer and a water-based rinse, respectively.

15. The method of claim 1, wherein the steps of drying and heating are performed
5 concurrently.

16. A method for dipcoating a lens, comprising the steps of:

predrying thermoplastic raw material in advance of molding an article;

molding the article;

10 maintaining a dip tank at a temperature T_D , wherein the dip tank includes a liquid including one of a primer and a hard coat solution;

drying the lens;

heating the lens to a temperature T_L ;

dipping the lens into the dip tank wherein T_L is within 20 degrees F of T_D .

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17. The method of claim 16, wherein the dip tank includes a primer solution, and the primer in the solution has a concentration of less than 10% by volume.

18. The method of claim 16, wherein the step of predrying includes maintaining the raw material
20 in an ambient environment having a negative dew point temperature.

19. The method of claim 18, wherein the step of maintaining the raw material includes maintaining the raw material in an ambient environment having a dew point temperature of -40 F for between about 2 hours and about 4 hours.

5 20. The method of claim 16, wherein the step of drying includes the step of storing the lens in a dry environment.

21. The method of claim 20, wherein the dry environment is heated.

10 22. The method of claim 20, wherein the dry environment is heated to a temperature within a range from about 90 degrees F to about 110 degrees F.

23. The method of claim 16, wherein the step of drying the lens is performed after the lens has been stored.

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24. The method of claim 16, wherein the predrying step includes maintaining the raw material in an ambient environment having a negative dew point temperature.

25. The method of claim 24, wherein the maintaining the raw material step includes maintaining
20 the raw material in an ambient environment having a dew point temperature of -40 F for between about 2 hours and about 4 hours.

26. The method of claim 16, wherein the dip tank includes below a 2% concentration of primer.

27. The method of claim 16, wherein said dipping step comprises dipping the lens into the dip tank wherein T_L is greater than T_D .

5 28. The method of claim 16, wherein the dip tank is heated within a range from about 100 degrees F to about 150 degrees F.

29. The method of claim 16, wherein the dipping step includes a primer dip and the method additionally includes the step of:

10 evening out the thickness of the primer by further dipping the lens in a rinse tank.

30. The method of claim 29, wherein the primer and the rinse comprise a water-based primer and a water-based rinse, respectively.

15 31. The method of claim 16, wherein the steps of drying and heating are performed concurrently.